Patent

Amendments to the Claims:

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1-6 (canceled).

7. (original): An apparatus to read digital watermarks embedded within a map, the map being divided into a plurality of areas, with each area comprising at least one embedded digital watermark including location information for the respective map area, said apparatus comprising:

a global positioning system receiver to determine a location of said apparatus; an input device to capture an image of at least a portion of the respective map area;

memory including executable software instructions stored therein, the instructions to extract the location information from the at least one embedded digital watermark from the captured image of at least a portion of the respective map area, and to correlate the location of the apparatus with the extracted location information;

electronic processing circuitry to execute the software instructions; and an output device to indicate the correlation of the apparatus location and the captured watermark location information.

- 8. (original): The apparatus according to claim 7, wherein said apparatus is a handheld apparatus.
- 9. (original): The apparatus according to claim 7, wherein the output device provides one of an LED indication, arrow indication, audio indication, grid indication, and visual display.

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10. (previously presented): A method of making a representation of a geographical area comprising:

dividing a representation of a geographical area into a plurality of areas; and steganographically encoding plural-bit location data within each of the plurality of areas, wherein the location data is unique per each of the plurality of areas.

11. (currently amended): A method of navigating with a map embedded with digital watermarks comprising:

machine-reading steganographic indicia from optical scan data representing a digital watermark from the map, the steganographic indicia digital watermark including location information which uniquely identifies the map in which the steganographic indicia digital watermark is embedded in;

comparing the location information to a physical location; and providing feedback to correlate the location information and the physical location.

12. (previously presented): A method of correlating a physical location to a map location, the map being divided into a plurality of areas, with each area comprising at least one embedded digital watermark including location information for the respective area, the method comprising:

extracting the location information from the watermark at the map location; comparing the extracted location information to global positioning system (GPS) received coordinates of the physical location; and

providing feedback based on the comparison of the physical location and the map location.

- 13. (previously presented): The method according to claim 12, wherein the location information comprises an index, and said method further comprises indexing a database with the index to identify location information.
- 14. (original): A sign having plural bit data encoded thereon in the form of a digital watermark, the data comprising a unique identifier.

- 15. (original): The sign according to claim 14, wherein in the unique identifier identifies the location of the sign.
- 16. (original): The sign according to claim 14, wherein the unique identifier conveys a message.
- 17. (previously presented): The sign according to claim 16, wherein the message comprises a speed limit, directions, location of an establishment, and seating information.
- 18. (previously presented): The sign according to claim 14, wherein the unique identifier comprises an index for a database, the database comprising data records.
- 19. (original): The sign according to claim 18, wherein a data record comprises at least one of a speed limit, directions, location of an establishment, Java applets, lodging vacancy, menu, hours of operation, tourist information, HTML code, URL page, IP address, and seating information.
 - 20. (previously presented): A method comprising: capturing an image of a sign;

extracting a digital watermark from the captured image, the watermark including plural-bit data; and

outputting a response in accordance with the plural-bit data.

- 21. (previously presented): The method according to claim 20, further comprising interrogating a database with the plural-bit data to locate a corresponding web page address.
- 22. (currently amended): The method according to claim 21, wherein the response comprises displaying [[the]] a web page associated with the web page address.

audio, video, and text data.

23. (previously presented): The method according to claim 20, further comprising accessing a file associated with the plural-bit data, the file including one of

- 24. (previously presented): An apparatus to read digital watermarks embedded within a map, the map being divided into a plurality of areas, with each area comprising at least one embedded digital watermark including location information for the respective map area, said apparatus comprising:
- a global positioning system that determines a location of said apparatus; an input to receive optical scan data corresponding to at least a portion of the respective map area;

memory including executable software instructions stored therein, the instructions to extract location information from the optical scan data of at least a portion of the respective map area, and to correlate the location of the apparatus with the extracted location information;

electronic processing circuitry to process the software instructions; and an output to indicate a correlation of the apparatus location and the watermark location information.

- 25. (original): An apparatus to read digital watermarks embedded within a map, the digital watermarks including location information for respective map locations, said apparatus comprising:
- a global positioning system receiving means for determining a physical location of said apparatus;

input means for inputting data corresponding to at least a portion of the respective map area;

processing means for extracting the location information from the input data and for correlating the physical location with the extracted location information; and

output means for outputting an indication of the relative correlation between the apparatus location and the watermark location information.

26. (previously presented): A method comprising: accessing a database comprising information; retrieving a subset of the database information;

storing the retrieved subset of database information in a handheld computing device, the handheld device including an input device;

capturing a portion of a digitally watermarked map by the input device, the portion including at least one watermark comprising map location information;

in the handheld computing device, determining which of the retrieved subset database information corresponds to the map location information; and providing the corresponding retrieved subset database information as feedback.

- 27. (previously presented): The method according to claim 26, further comprising wirelessly accessing the database.
- 28. (original): The method of claim 26, wherein the database information includes at least one of road directions, restaurant information, store or restaurant promotions, coupons, tourist information, historical information, zoo information, amusement park information, rest-stop information, road conditions, road work information, and detour information.
- 29. (original): The method of claim 26, wherein the feedback comprises at least one of visual feedback, audible feedback, text feedback, graphical user interface feedback, laser pointer illumination and a printed document.

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30. (canceled).

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31. (previously presented): A method comprising:

inputting a map location to a computing device, wherein the map includes a plurality of digital watermarks embedded therein, and wherein said inputting a map location to a computer device comprises reading at least one of the plurality of digital watermarks, the watermark comprising the map location;

determining a current location;

in the computing device, determining a relationship between the input map location and the current location; and

providing directions from the current location to the map location.

32. (previously presented): The method of claim 31, wherein said determining a current location comprises receiving GPS signals to determine the current location.